

Guide to Test Interpretation

Indiana Department of Education

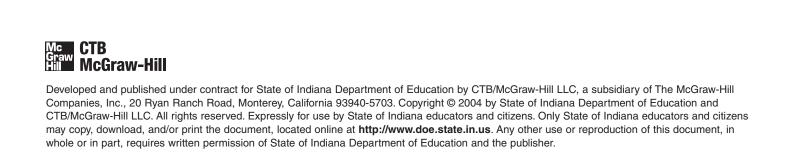
Grades 3-10

Fall 2004

School Year 2004–2005







A Message from Dr. Suellen Reed

December 2004

Dear Educators:

The *Guide to Test Interpretation* (GTI) provides important information to aid you in interpreting your students' test scores. Greater understanding of the results will help you better communicate them to other educators, parents, students, and community members.

The fall 2004 administration of *ISTEP+* measured the performance of Indiana's students against Indiana's highly acclaimed Academic Standards. The standards are clear, concise, and jargon-free, and they are clearly more rigorous than those on which assessments were based prior to 2002. In addition to parent/student and teacher's editions of the standards, Curriculum Frameworks have been made available to educators to support their classroom activities.

The 2002 test data serve as the baseline for Indiana in meeting the mandate contained in the No Child Left Behind Act of 2001—having 100 percent of students proficient in English and mathematics by the school year 2013–2014. This mandate intensifies the need to interpret test data thoroughly and accurately. Students' weaknesses and strengths, as identified by the test results, should serve as the basis for making informed decisions about individual students' instructional needs.

Many activities may occur at the local level with the release of this test data. Program evaluations, research-based activities, and a strong communication effort within school buildings and school communities alike can help facilitate improvement. Emphasizing the significance of this data and fostering the involvement of parents and stakeholders in a continuous improvement model will help us move farther and faster toward the goal of 100 percent proficiency by 2013–2014.

We expect the *Guide to Test Interpretation* will be helpful to you and will strengthen your knowledge of *ISTEP+* and its results.

Sincerely,

Dr. Suellen Reed

Superintendent of Public Instruction

Dr. Suellen Reed

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What can you learn from *ISTEP+?*

Taxpayers, parents, and educators ask many questions about instructional programs as Indiana strives to build a brighter future by providing the best possible education for its young people. Questions such as the following are commonly asked:

"Are all of our students attaining the skills they need to succeed?"

"What kind of individual instruction would help my child?"

ISTEP+ provides information that will help you answer such questions and support the instructional choices you make for your students. *ISTEP+* reports can quickly show you the following:

- To what extent an individual student has mastered Academic Standards in the English/language arts and mathematics content areas.
- To what extent the students in your classroom, school, and corporation as a group are attaining mastery of Academic Standards.
- Where the students in your class, school, or corporation are relative to the Indiana Academic Standards established by the State Board of Education (see page 10 for definitions of performance levels).

What is a criterionreferenced score?

Criterion-referenced scores indicate where a student stands in relation to the established Indiana Academic Standard. These scores are developed based on Item Response Theory (see page 8). The most valuable application of criterion-referenced information is to identify a student's strengths and needs and to plan appropriate instruction.

Criterion-referenced scores are presented by Academic Standard within each content area, as follows:

Criterion-Referenced Score Categories					
Domain English/language arts Mathematics					
Academic Standards	3.1 Reading Vocabulary 3.2 Reading Comprehension	3.1 Number Sense 3.2 Computation			

Item Response Theory

Item Response Theory (IRT) refers to the theory underlying a family of statistical models. These models describe the behavior of test questions, or items, and examinees. For the *ISTEP+* tests, two models are used. One is used for the multiple-choice items, and another is used for the constructed-response items.

The two models are used in combination with test data to characterize items and generate student scale scores. Both models use the data to determine how difficult each item is and how well each item accurately identifies students who do and do not have the skill being tested by the item. The multiple-choice model also describes the degree to which students can guess the correct answer to each item.

Pattern Scoring

The statistical characteristics of the items can affect a student's total test score (scale score). This is particularly true with *ISTEP+* because it is pattern scored. Pattern scoring incorporates information from items using the IRT model. In contrast, raw scoring or number-correct scoring simply notes whether or not the student answered the item correctly. Both pattern scores and raw scores can be considered ability scores used to represent a student's ability level. To illustrate the differences between pattern scoring and raw scoring, consider two students, Student 1 and Student 2, who both correctly answer 20 items. Student 1 answers the 20 most difficult items, while Student 2 answers the 20 easiest. With raw scoring, both students receive the same raw (ability) score, indicating both students have the same "ability," and the highest raw score possible is equal to the total number of items on a test. In contrast, when the pattern of the items answered correctly is taken into account—that is, when the information about the difficulty of the items (among other item characteristics) is considered—Student 1 rightly receives a higher ability score.

Scale Scores

When ability scores are placed on a scale different from the raw score or number-correct scale, they are called "scale scores." The ability scores are transformed and placed onto a scale, much like taking a degree of temperature on the Celsius scale and transforming it onto the Fahrenheit scale. How hot or cold the temperature is does not change. What does change is the scale used to describe the temperature. In the same way, ability scores can be described by different scales and still maintain their meaning as an indication of ability.

Vertical Scale

The *ISTEP+* tests have been placed on yet another scale, a "vertical scale." Instead of having a different scale for each grade, the *ISTEP+* ability scores have been placed on two scales that move vertically from Grade 3 through Grade 9—one for English/language arts and one for mathematics. Without a vertical scale, one would not be able to make a direct comparison of an individual student's performance from grade to grade within a content area. To return to the temperature example, instead of having to report the temperature in North Dakota on the Celsius scale and the temperature in Florida on the Fahrenheit scale, one can report conditions in both areas on the Fahrenheit scale.

Similarly, instead of having a different scale at each grade, there is only one scale for each content area in Grades 3–9. One thing to keep in mind: The temperature range and average (mean) temperature in North Dakota are usually lower than they are in Florida, although the states sometimes have similar temperatures. In the same way, the ranges of and mean scores for Grade 3 are lower than those for Grades 4–9.

The range of scores possible has been defined so that there is a lowest scale score and a highest scale score possible, or "obtainable," for the vertical scale. We call the lowest obtainable scale score the "LOSS" and the highest obtainable scale score the "HOSS." For ease of grade distinction, each grade also has a LOSS and HOSS. Again, the scores for a specific content area for Grades 3–9 are on only one vertical scale.

Illustration of LOSS, HOSS, and Score Overlaps:

Grade X	100	200
Grade Y	120	220
Grade Z	130	230

To interpret a student's progress from grade to grade, you can check to see whether the student's scale scores are moving upward along the vertical scale each year. The amount of movement, or the number of scale score points increased or decreased, will likely vary from year to year and grade to grade as the test items change from year to year. However, generally speaking, you may be able to gauge the student's progress (or lack thereof) as he or she moves up or down the scale from grade to grade.

Direct comparisons of individual student scores should not be made across content areas. For example, a score of 185 in English/language arts does not mean the same thing as a score of 185 in mathematics. Also, minor fluctuations in a student's score from year to year should not be used as the sole source for making high-stakes decisions about a student's progress. It is very important to take into account, before interpretation of student progress, that the difficulty of the content increases from grade to grade and that there are overlaps in scores, as described. Be sure to note where most students are performing—i.e., the mean. If the student performs below the mean one year and above the mean the next, it is likely the student is making progress, compared to same-grade peers. Because of the variability in scores from year to year, it is also very important to consider the student's overall performance level (Did Not Pass, Pass, or Pass+).

Cut Scores and Performance Levels

New federal legislation, the No Child Left Behind Act (NCLB), requires that student achievement be reported in terms of at least three performance levels. One of these performance levels is designated as the proficient level. Each state must determine the number of performance levels to use, as well as the meaning associated with those levels. For Grades 3–9, the *ISTEP+* test scale is divided into three performance levels using two cut scores. The cut score is the score that separates two performance levels. Based on their *ISTEP+* scale score, students are placed into one of three performance levels: Did Not Pass, Pass, and Pass+. For Indiana students, the performance level labeled "Pass" is the proficient level.

Each performance level has a descriptor: a description of what students can do in terms of the content and skills measured by *ISTEP+*. By examining the descriptor for a level in which a student has been placed, teachers, parents/guardians, and the student can gain an understanding of the student's current knowledge of a particular content area. Performance level information can be used to help plan individual instructional goals for the student.

In addition, an Undetermined category is reported for any student whose *ISTEP+* scores for English/language arts and/or mathematics are incomplete (i.e., all or part of a test was not taken or was considered invalid by the examiner).

Academic Standards Scores

Indiana's Academic Standards are listed by content area on the Student Report, the Class Academic Standards Report, and the Group Academic Standards Summary.

The Indiana Performance Index (IPI) is used to indicate a student's performance on the Academic Standards. This is a statistical value that reflects the number of items a student would have answered correctly if the student had responded to 100 similar items for the specific Academic Standard on the test. It is a better measure of the student's performance than a simple percentage of correct answers to a small number of questions.

On the Student Report, next to each Academic Standard, the Student Performance score is shown, along with the Passing Level score for a student at the standard and the difference between the two scores.

The Class Academic Standards Report indicates whether students have mastered each Academic Standard. Symbols appear on this report indicating 1) mastery, 2) non-mastery, and 3) whether a subtest was omitted or invalid. Mastery of an Academic Standard indicates that the Student Performance is equal to or greater than the Passing Level for a student at the standard.

The corporation Group Academic Standards Summary provides a summary of students' performance for all schools in the corporation.

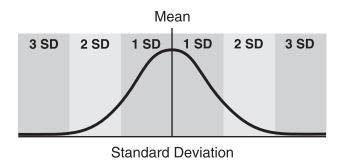
Note: All sample reports shown in this guide contain simulated data only.

Mean and Median Scores

On *ISTEP+* reports, summary information for a group (such as a class) is often presented using mean or median scores. The mean is the average score obtained by adding together all scores in the group and dividing by the number of students in the group. The median is the middle score (50% of the scores fall below it).

Standard Deviation

The Standard Deviation (SD) indicates the amount of variability in a group of scores. When scores are normally distributed (i.e., when they are part of a bell-shaped, "normal" curve), about two-thirds of the scores are within one SD above and below the average (mean) score, and about 95% of scores are within two SDs of the mean. In almost any shaped distribution, all scores will be within five standard deviations of the mean score.



The ISTEP+ Testing Program

Reports for Grades 3, 6, and 8

This guide will help you understand *ISTEP+* test results and reports more clearly and, using those results, provide educational opportunities for students more effectively. The guide will also help you be better prepared to answer questions from parents, students, and other members of the educational community regarding *ISTEP+* results. Toward this end, a sample letter to parents is included at the end of this guide for your use.

Each *ISTEP+* report is designed to present clearly the information most useful to you and to parents. The audience for and number of copies of each report are listed in the table on the following page.

Reports for Grades 4, 5, 7, and 9

For fall 2004, students in Grades 4, 5, 7, and 9 will receive all of the regular *ISTEP+* reports, and results at these grades will be used for statewide accountability purposes. Grade 5 reports will include three content areas: English/language arts, mathematics, and science. Reports will be generated and delivered in a separate shipment in 2005. The delivery date is still to be determined.

Reports for Grade 10

The fall 2004 *ISTEP+* test for Grade 10 is newly aligned with the Indiana Academic Standards. Student achievement will now be reported by three performance levels: Did Not Pass, Pass, and Pass+. A cut score setting will be held in January 2005 to determine the cut scores for the three performance levels. Score reports will be generated and delivered after the Indiana Board of Education approves the final cut scores.

Reports for GQE – First Edition (Retest)

Reports for anyone taking the GQE – First Edition (Retest) will be the same as the reports in the past—i.e., student achievement will be reported by two performance levels. These reports will be delivered at the same time as the reports for Grades 3, 6, and 8.

The ISTEP+ Testing Program

ISTEP+ Report Information	
Report	Number of Copies
For Teachers	
Student Report	3
Class Proficiency Grouping Report (Grades 3 and 6 only)	1
Proficiency Roster	1
Class Academic Standards Report	1
Undetermined Status Roster	2
ISTEP+ Label	1
For the School Administrator	
Proficiency Roster	1
School Proficiency Performance Summary	1
Group Academic Standards Summary	2
Disaggregation Summary Report	1
Applied Skills Frequency Distribution	1
For the Corporation Administrator	
Proficiency Roster (school)	1
School Proficiency Performance Summary	1
Corporation Proficiency Performance Summary	2
Disaggregation Summary Report (school)	1
Disaggregation Summary Report (corporation)	2
Group Academic Standards Summary (corporation)	2
Applied Skills Frequency Distribution (school/corporation)	1 each
Undetermined Status Roster	1
Academic Standards Frequency Distribution	1

Copies of student answers to the constructed-response, or open-ended, items, as they appeared in the Applied Skills Assessment test books, will be returned to teachers to assist them in reviewing the students' performance. The teacher may use these papers, in conjunction with information in the *Teacher's Scoring Guides*, in further evaluating a student's strengths and needs. Three copies of the Student Report are included in the score report package. One copy is in a folder marked Image Print. This copy is to be used with the student's imaged responses to the Applied Skills Assessment.

The *ISTEP+* score reports are packaged by class, school, and corporation, and they are shrink-wrapped to prevent damage during handling. Student reports for Braille tests are shipped separately.

The ISTEP+ Testing Program

Before you can interpret and apply the information in the reports, you must understand the meaning of the scores presented. Please review the previous section in this guide, "Understanding *ISTEP+* Test Results." You will also find a glossary at the end of the guide.

Sample Letter to Parents

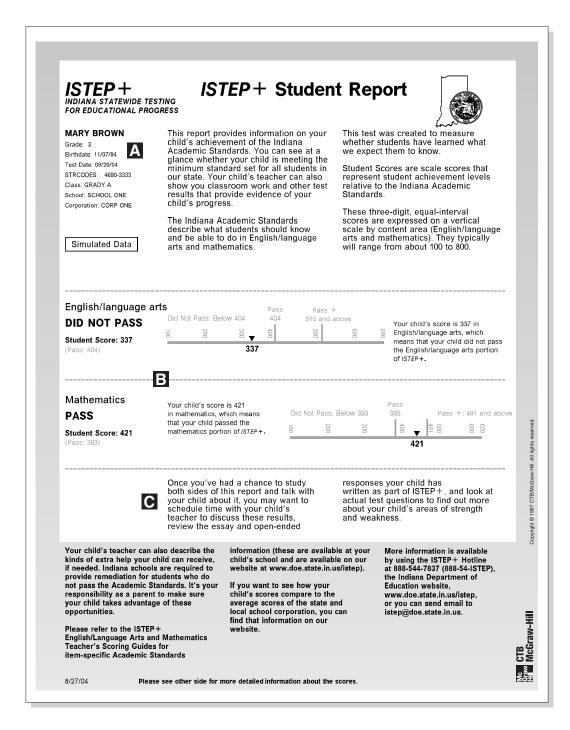
To help the teacher explain the *ISTEP+* reports to parents, a sample letter to parents is provided on page 59. You may duplicate or edit the letter to make it appropriate for your use.

Student Report (Front)

The Student Report has been redesigned to more clearly communicate student performance. The front of the report shows the Student Score and whether the student is placed in the Did Not Pass, Pass, or Pass+ performance level in each content area. The three performance levels were established by the Indiana Board of Education (see page 10 for an explanation of performance levels). Students whose scores place them in the Pass or Pass+ performance levels meet the Indiana Academic Standards. The front of the report also provides guidance to parents who may want to obtain more information or assistance for their child. Three copies of this report are provided. Two copies are for school use and one copy is for the parent.

Sample Student Report

The sample Student Report presents results for Mary Brown, a third-grade student who took the *ISTEP+* test. The middle section of this page describes Mary's performance as measured against the Indiana Academic Standards, and it shows her achievement as a three-digit Student Score. The score required to pass the Indiana Academic Standards in English/language arts is 404. Mary's score of 337 means she did not pass the Indiana Academic Standards for that content area. The score required to pass in mathematics is 393. Mary's score of 421 means she passed the Indiana Academic Standards for that content area.

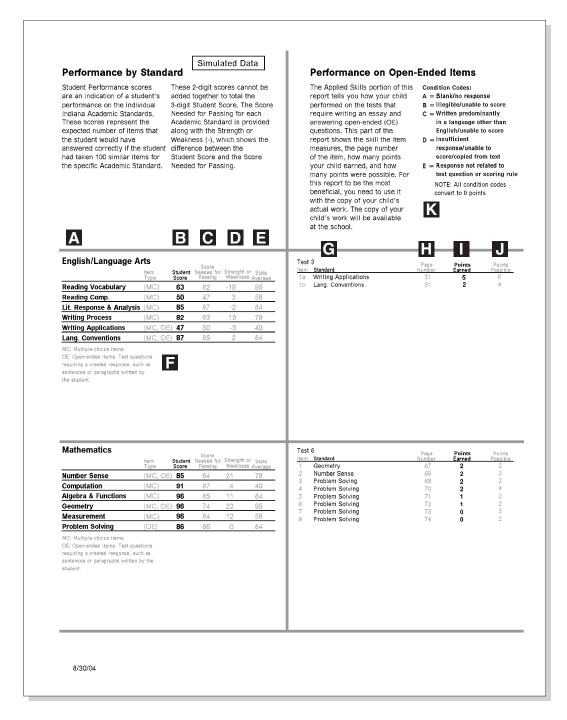


Highlights of the Student Report (Front)

- A Identifies the student's name and grade. Indicates the test date and identifies the corporation-school number, class, school, and corporation.
- **B** Explains the student's performance relative to the cut scores established by the Board of Education.
- **C** Provides information for parents.

Student Report (Back)

The back of the Student Report details Performance by Standard and Performance on Open-Ended Items. On the left side of the page, each Academic Standard is listed along with the item type, the Student Score, the Score Needed for Passing, the difference between the student score and the passing score (Strength or Weakness), and the State Average score. Reading to the right of the first Academic Standard, Reading Vocabulary, you will see that Mary achieved a Student Score of 63 as compared with the Score Needed for Passing, which is 82. Mary's score is 19 points lower than the Score Needed for Passing. The State Average score is 95.



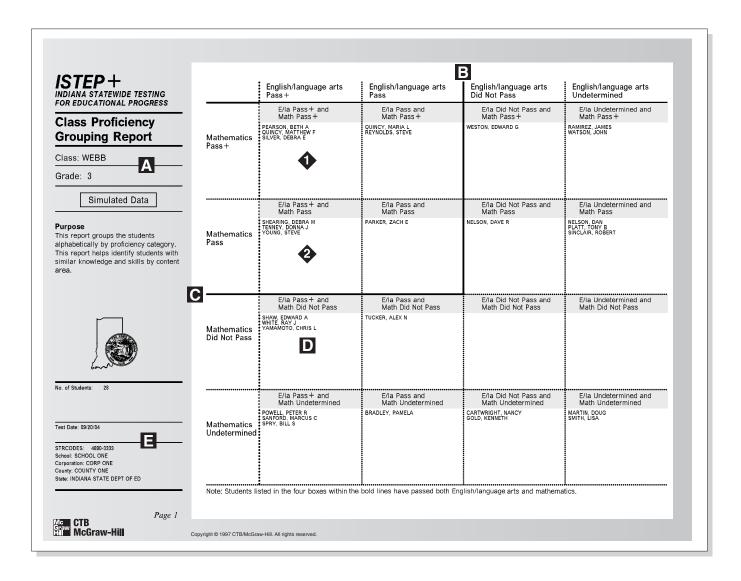
On the right side of the page, the points earned by the student for each openended item are listed, along with the points for each item and test session. For example, in the English/language arts section, Test 3, you will see that Item 1a, Writing Applications, is located on page 31 of the test book and that Mary scored five points out of six points possible for this item. This report is used in conjunction with the *Teacher's Scoring Guides* and the imaged student responses to help the teacher explain the scores and the scoring process. Imaged student responses will be returned to the schools in December 2004.

Highlights of the Student Report (Back)

- A Lists Academic Standards, grouped by content area.
- **B** Shows the Student Score for each Academic Standard.
- **■** Indicates the Score Needed for Passing for each Academic Standard for a student meeting the standard.
- D Shows the difference (+ or −) between the Student Score and the Score Needed for Passing for a student at the standard.
- **E** Shows the State Average (mean) score.
- **F** Defines the abbreviations used in this report.
- **G** Lists each item and its Academic Standard by content area and test session.
- Indicates the page on which the item appears in the test book.
- Indicates the number of score points that the student earned for the given open-ended item or, if no score, the letter of the condition code.
- **J** Shows the number of points possible for the given open-ended item.
- **K** Explains condition codes.

Class Proficiency Grouping Report (Grades 3 and 6 only)

This report groups students according to their performance relative to the cut scores (see page 55 for a definition of cut scores) in the content areas assessed by *ISTEP+*. For example, students whose names appear in the rectangle in the upper left-hand corner of the report have obtained scores in the Pass+ performance level in both English/language arts and mathematics. Students reported in the rectangle immediately below the upper left-hand rectangle have scored in the Pass+ performance level in the English/language arts standard and in the Pass performance level in mathematics. Take a moment to familiarize yourself with the layout of this report.



Highlights of the Class Proficiency Grouping Report

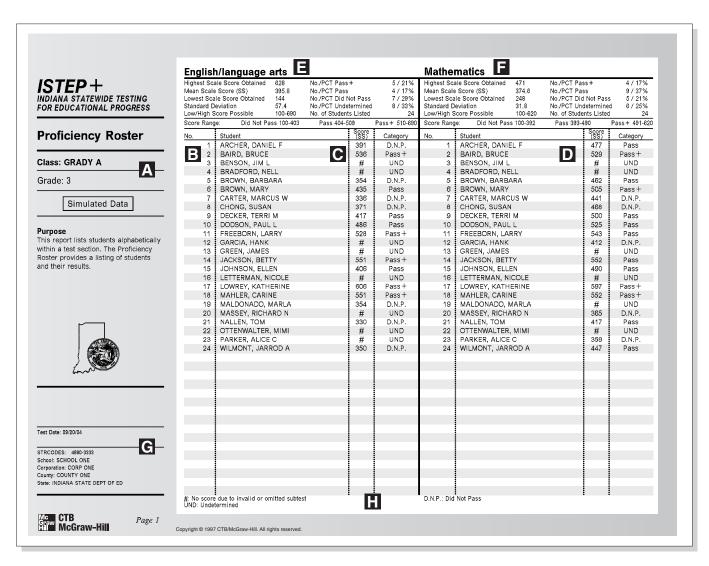
- A Identifies the class by the teacher's name and grade.
- **B** The **columns** report performance levels for English/language arts.
- **C** The **rows** report performance levels for mathematics.
- Lists students alphabetically within performance levels for both content areas. In this box, the students listed scored in the Pass+ performance level in English/language arts and the Did Not Pass performance level in mathematics.
- Indicates the test date and identifies the corporation-school number, school, corporation, county, and state.

Proficiency Roster

This report lists all students in the class alphabetically and tells the teacher how each student performed in the content areas of English/language arts and mathematics. Also shown is the scale score for each student in each of the content areas.

In the upper portion of the report, summary information is given for the class as a whole. Shown for each of the two content areas are the lowest and highest scale scores obtained by the students in the group, class average (mean scale score), the standard deviation, and the lowest and highest possible scores.

The group's performance is also compared to the cut scores to show the number and percentage of students scoring at the Pass+, Pass, and Did Not Pass performance levels.



Highlights of the Proficiency Roster

- A Identifies the class by the teacher's name and grade.
- **B** Lists students alphabetically within the class.
- Provides each student's scale score and performance level within the English/language arts content area.
- Provides each student's scale score and performance level within the mathematics content area.
- Provides English/language arts summary information for the class.
- **F** Provides mathematics summary information for the class.
- G Indicates the test date and identifies the corporation-school number, school, corporation, county, and state.
- **H** Defines the symbols and acronyms used in this report.

Class Academic Standards Report

The Class Academic Standards Report provides Academic Standards information for all the students in your class on a single report. It presents mastery information for each student and summarizes the performance of the class as a whole.

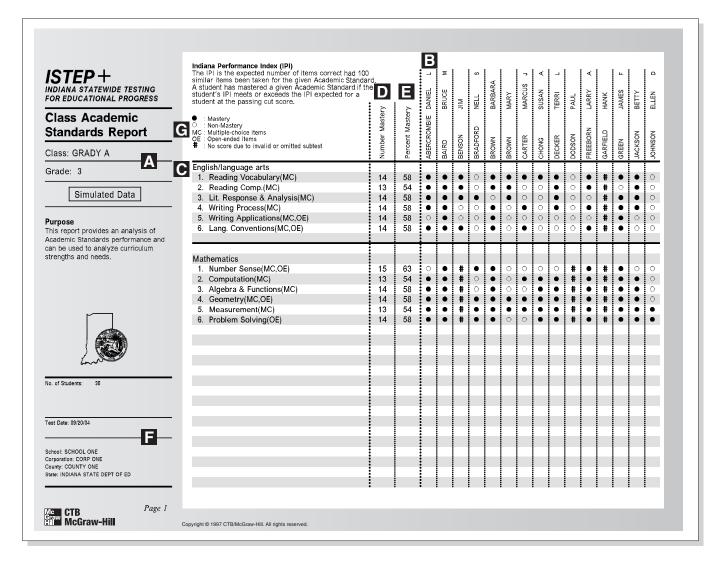
Academic Standards Information

The name of each student in the class appears in alphabetical order across the top of the report. The column below the student's name presents mastery information for that student. The Academic Standards for the grade appear on the left side of the report.

To the right of each Academic Standard the following information appears:

- the number of students who mastered the Academic Standard, and
- the percentage of students who mastered the Academic Standard.

You can use this information to identify areas in which students may need additional instruction.

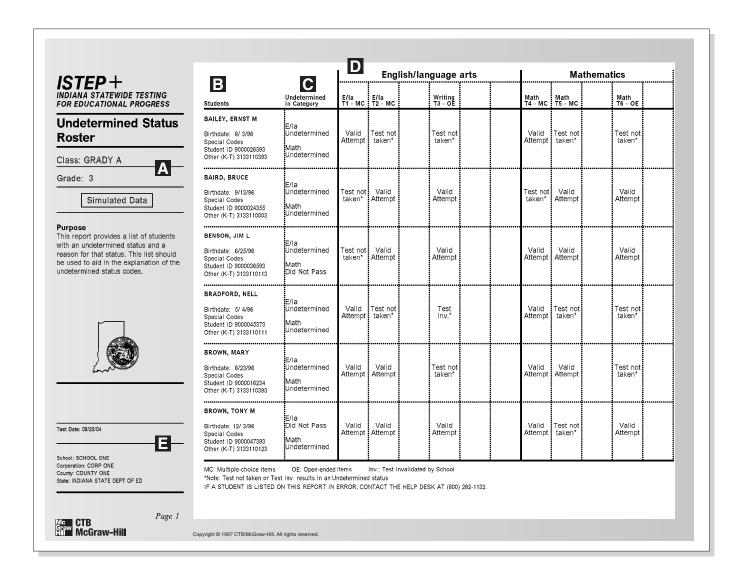


Highlights of the Class Academic Standards Report

- A Identifies the class by the teacher's name and grade.
- **B** Lists students alphabetically by name from left to right.
- **C** Lists Academic Standards for the grade.
- **D** Shows the number of students who mastered each Academic Standard.
- **E** Shows the percentage of students who mastered each Academic Standard.
- Indicates the test date, and identifies the school, corporation, county, and state.
- **G** Defines the symbols and acronyms used in this report.

Undetermined Status Roster

This report lists alphabetically all students in the class who have an Undetermined status. Students who fail to complete one or more subtests in English/language arts or mathematics are listed as Undetermined. The report indicates whether the subtest was not taken or was invalidated, thus explaining the reason for the Undetermined status.



Highlights of the Undetermined Status Roster

- A Identifies the class by teacher's name and grade.
- **B** Lists alphabetically students who have an Undetermined status in English/language arts and/or mathematics.
- C Indicates whether the Undetermined status is in English/language arts and/or mathematics.
- **D** Indicates which subtest was invalidated or not completed.
- Indicates the test date and identifies the school, corporation, county, and state.

ISTEP+ Label

The *ISTEP+* Label presents an individual student's criterion-referenced test results in a form that you can easily attach to the student's permanent record.

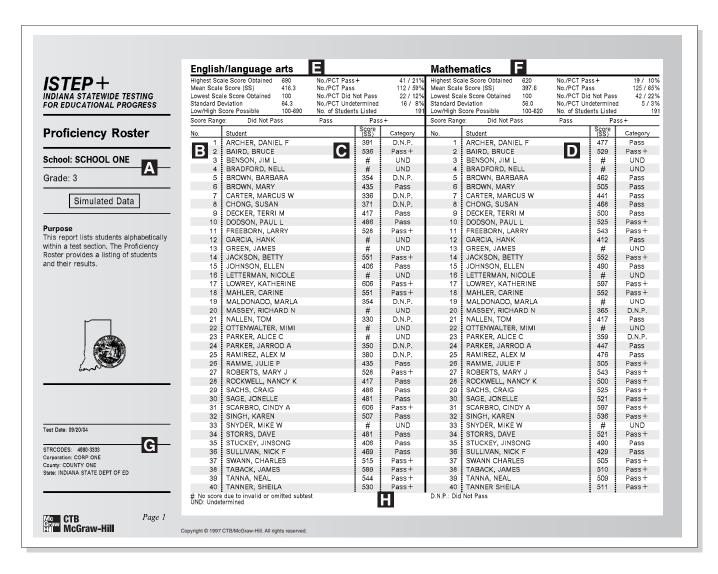
GOODNIGHT	MARTHA	s [Simulated Data			
GOODNIGHT DOB: STN: GRADE:	MARTHA 10/15/94 123456789	S IST	TEP+	ENGLISH/LANGUAGE ARTS	MATHEMATICS 393	+
TEST DATE: SCHOOL: CORP:	09/20/04 SCHOOL ONE CORP ONE		PASS+ CUT SCORE STUDENT SCORE PROFICIENCY LEVEL	510 520 PASS +	491 UND. UND.	

Proficiency Roster

This report lists alphabetically all students in the school by grade and tells the principal how each student performed in the content areas of English/language arts and mathematics. Also shown is the scale score for each student in each of the content areas.

In the upper portion of the report, summary information is given for the school as a whole. Shown for each of the two content areas are the lowest and highest scale scores obtained by the students in the group, class average (mean scale score), the standard deviation, and the lowest and highest possible scores.

The group's performance is also compared to the cut scores to show the number and percentage of students scoring at the Pass+, Pass, and Did Not Pass performance levels.



Highlights of the Proficiency Roster

- A Identifies the school and grade.
- **B** Lists students alphabetically within the school for the grade tested.
- Provides each student's scale score and performance level within the English/language arts content area.
- Provides each student's scale score and performance level within the mathematics content area.
- **E** Provides English/language arts summary information for the school.
- **F** Provides mathematics summary information for the school.
- G Indicates the test date and identifies the corporation-school number, corporation, county, and state.
- H Defines the symbols and acronyms used in this report.

School Proficiency Performance Summary

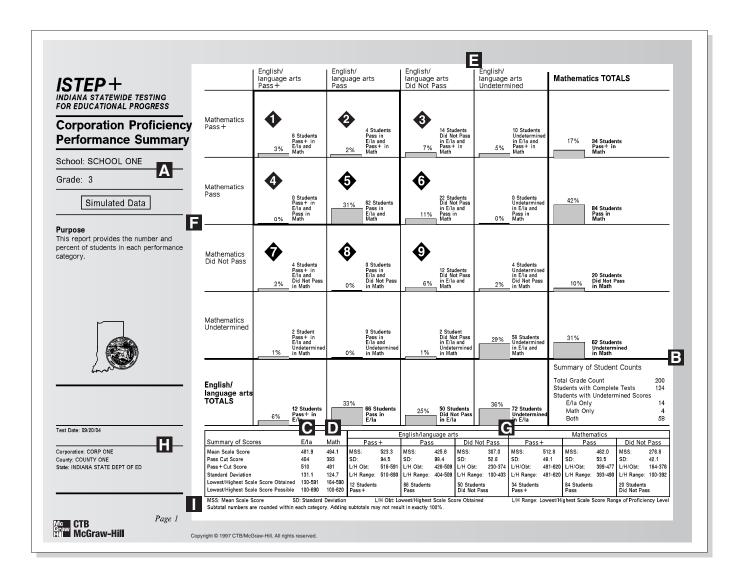
This report summarizes groups of students according to performance levels in the two content areas assessed by *ISTEP+*. It also provides summary scores by performance level. Each box provides the number and percentage of students who scored in each combination of performance levels. The rows provide performance-level information for mathematics, and the columns provide performance-level information for English/language arts. See the table below for clarification. The sum of students listed in blocks 1–9 is the total number of students with complete tests.

	English/language arts Pass+	English/language arts Pass	English/language arts Did Not Pass	
Mathematics Pass+	Students who scored in the Pass+ performance level in both E/la and math.	Students who scored in the Pass performance level in E/la and the Pass+ level in math.	Students who scored in the Did Not Pass performance level in E/la and the Pass+ level in math.	
Mathematics Pass	Students who scored in the Pass+ performance level in E/la and the Pass level in math.	Students who scored in the Pass performance level in both E/la and math.	Students who scored in the Did Not Pass performance level in E/Ia and the Pass level in math.	
Mathematics Did Not Pass	Students who scored in the Pass+ performance level in E/la and the Did Not Pass level in math.	Students who scored in the Pass performance level in E/la and the Did Not Pass level in math.	Students who scored in the Did Not Pass performance level in both E/la and math.	

Students whose scores are summarized in the bold box in the upper left-hand corner of the report on the next page passed both English/language arts and mathematics.

The section entitled "Summary of Student Counts" shows the total number of students, the number of students with complete tests in both content areas, and the number with Undetermined status in one or both areas.

A section at the bottom of the report called "Summary of Scores" provides school averages, standard deviations, and score ranges. For each of the performance levels—Pass+, Pass, and Did Not Pass—the mean scale score, the standard deviation, and the lowest and highest scale scores obtained are shown.

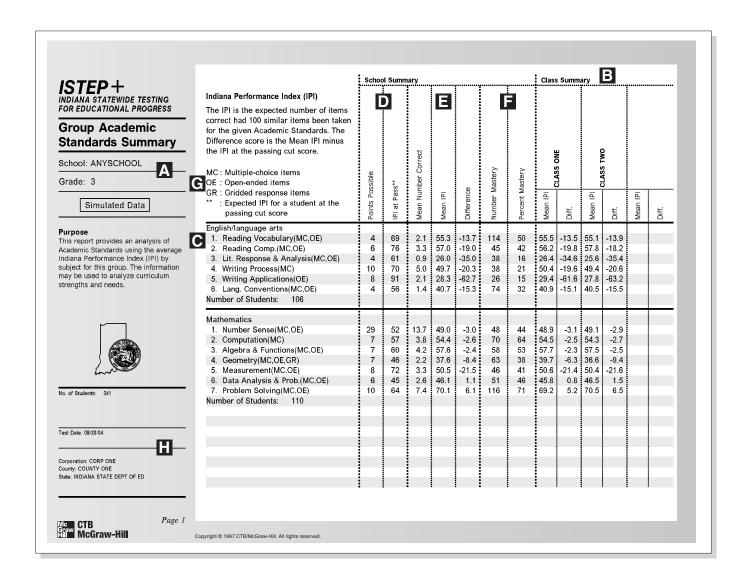


Highlights of the School Proficiency Performance Summary

- A Identifies the school and grade.
- **B** Reports the number of students.
- **©** Provides school summary information for English/language arts.
- **D** Provides school summary information for mathematics.
- **E** The **columns** report performance levels for English/language arts.
- The **rows** report performance levels for mathematics.
- **G** Provides school summary scores by performance level for both English/language arts and mathematics.
- **H** Indicates the test date and identifies the corporation, county, and state.
- Defines the acronyms used in this report.

Group Academic Standards Summary

The Group Academic Standards Summary provides criterion-referenced information from the *ISTEP+* achievement tests, summarizing the performance of students for an individual school by grade. In the past, this report was sent only to the corporation. For fall 2004, this report is also included in the reports sent to each school.

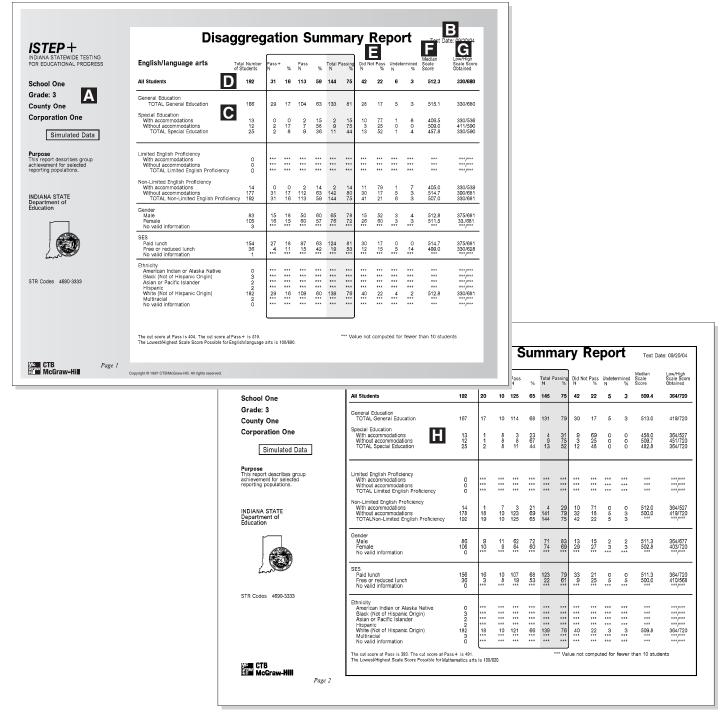


Highlights of the Group Academic Standards Summary

- A Identifies the school and grade.
- **B** Identifies the names of individual classes.
- C Lists Academic Standards for the grade.
- D Shows the number of score points that assess each Academic Standard and lists the Indiana Performance Index (IPI) at the passing cut score.
- E Lists the mean number of score points obtained by the students in your school by grade, the mean IPI obtained by your students, and the difference between the mean IPI and the IPI at the passing cut score.
- Lists the number of students and the percentage of students who obtained mastery of each Academic Standard (achieved an IPI at or above the standard).
- **G** Defines report symbols and acronyms used in this report.
- **H** Indicates the test date and identifies the corporation, county, and state.

Disaggregation Summary Report

The Disaggregation Summary Report comprises two pages, one for English/language arts and one for mathematics. This report presents, by content area, the total number of students with scores identified as passing with high achievement (Pass+), passing (Pass), not passing (Did Not Pass), and Undetermined. This information is provided for all students, as well as certain subgroups—e.g., special education students with and without accommodations.



Reports for the School Administrator

Highlights of the Disaggregation Summary Report

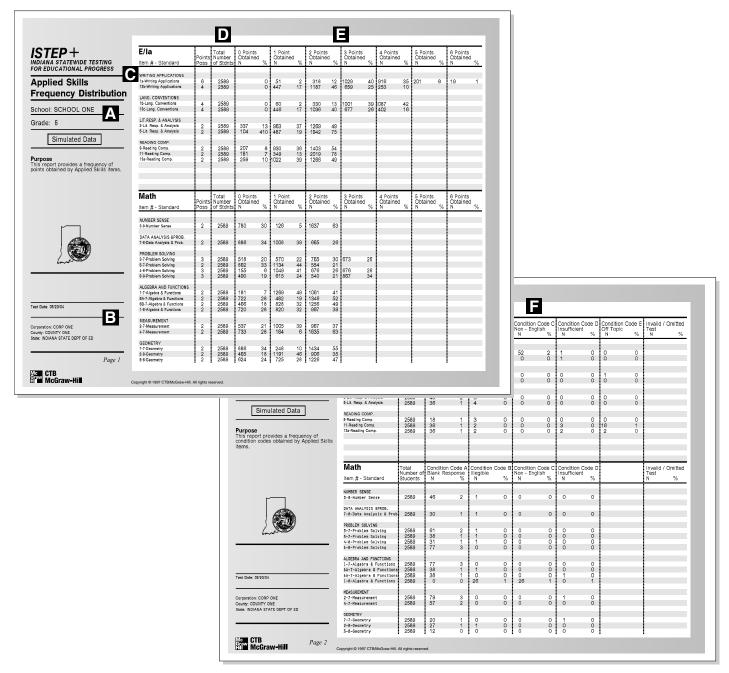
- A Identifies the school, grade, county, and corporation.
- B Indicates the test date.
- C Identifies the subgroups in the English/language arts content area.
- **D** Provides the total number of students.
- E Indicates the number and percentage of students who obtained Pass+, Pass, or Did Not Pass scores or who were Undetermined. The Total Passing column indicates the total number of students in the Pass+ and Pass columns.
- Indicates the median scale scores. (Not computed for groups with fewer than 10 students.)
- **G** Indicates the lowest and highest scale scores obtained.
- H Identifies the subgroups in the mathematics content area.

Reports for the School Administrator

Applied Skills Frequency Distribution

The Applied Skills Frequency Distribution report presents, at the school level, the number and percentage of students who obtained each score point for the individual Applied Skills items. This information can be used to determine if the students in your school show strengths or needs on specific Applied Skills items and, therefore, in the Academic Standards that are assessed by these items.

Note: All sample reports shown in this guide contain simulated data only.



Reports for the School Administrator

Highlights of the Applied Skills Frequency Distribution

- A Identifies the school and grade.
- **B** Indicates the test date and identifies the corporation, county, and state.
- Identifies the item number and the standard(s) being scored. Descriptions of each item, along with scoring rubrics and standards, are found in the *ISTEP+Teacher's Scoring Guides*.
- **D** Lists the total number of students tested in the school.
- **E** Lists the number and percentage of students obtaining each score point.
- **E** Lists by condition code the number and percentage of students who did not receive a score.

Condition Codes

A = Blank/no response

B = Illegible/unable to score

C = Written predominantly in language other than English/unable to score

D = Insufficient response/unable to score/copied from text

E = Response not related to test question or scoring rule

Note: All condition codes convert to 0 points obtained.

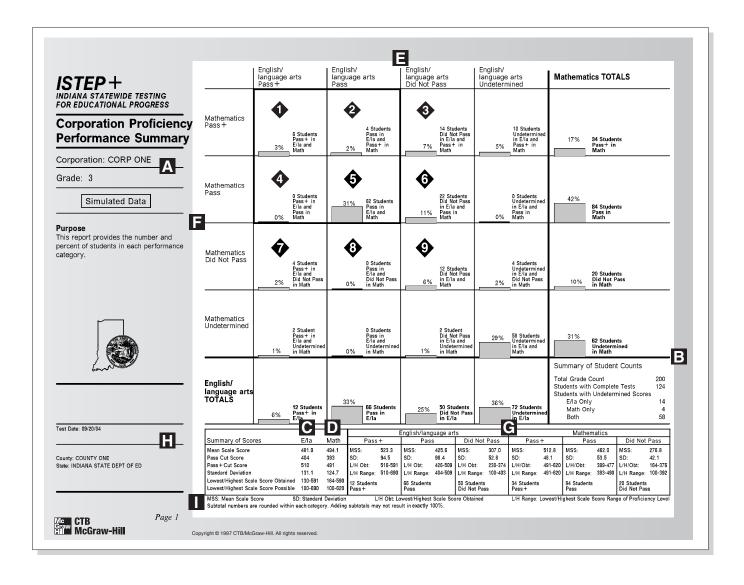
Corporation Proficiency Performance Summary This report summarizes groups of students according to performance levels in the two content areas assessed by *ISTEP+*. It also provides summary scores by performance level. Each box provides the number and percentage of students who scored in each combination of performance levels. The rows provide performance-level information for mathematics, and the columns provide performance-level information for English/language arts. See the table below for clarification. The sum of students listed in blocks 1–9 is the total number of students with complete tests.

	English/language arts Pass+	English/language arts Pass	English/language arts Did Not Pass
Mathematics Pass+	Students who scored in the Pass+ performance level in both E/la and math.	Students who scored in the Pass performance level in E/la and the Pass+ level in math.	Students who scored in the Did Not Pass performance level in E/la and the Pass+ level in math.
Mathematics Pass	Students who scored in the Pass+ performance level in E/la and the Pass level in math.	Students who scored in the Pass performance level in both E/la and math.	Students who scored in the Did Not Pass performance level in E/la and the Pass level in math.
Mathematics Did Not Pass	Students who scored in the Pass+ performance level in E/la and the Did Not Pass level in math.	Students who scored in the Pass performance level in E/la and the Did Not Pass level in math.	Students who scored in the Did Not Pass performance level in both E/la and math.

Students whose scores are summarized in the bold box in the upper left-hand corner of the report on the next page passed both English/language arts and mathematics.

The section entitled "Summary of Student Counts" shows the total number of students, the number of students with complete tests in both content areas, and the number with Undetermined status in one or both areas.

A section at the bottom of the report called "Summary of Scores" provides school averages, standard deviations, and score ranges. For each of the performance levels—Pass+, Pass, and Did Not Pass—the mean scale score, the standard deviation, and the lowest and highest scale scores obtained are shown.

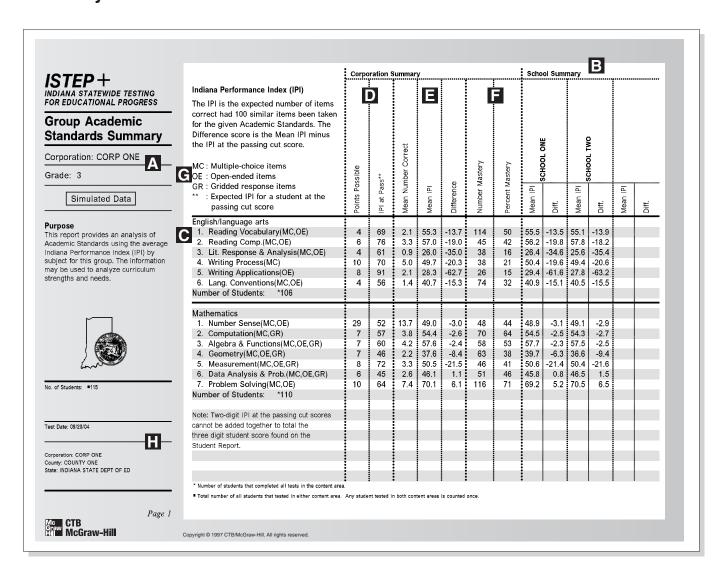


Highlights of the Corporation Proficiency Performance Summary

- A Identifies the corporation and grade.
- **B** Reports the number of students.
- Provides corporation summary information for the English/language arts content area.
- **D** Provides corporation summary information for the mathematics content area.
- **E** The **columns** report performance levels for English/language arts.
- **F** The **rows** report performance levels for mathematics.
- Provides corporation summary scores by performance level for both English/language arts and mathematics.
- **H** Indicates the test date and identifies the county and state.
- Defines the acronyms used in this report.

Group Academic Standards Summary

The corporation Group Academic Standards Summary provides criterion-referenced information from the *ISTEP+* achievement tests, summarizing the performance of students for each school by grade.

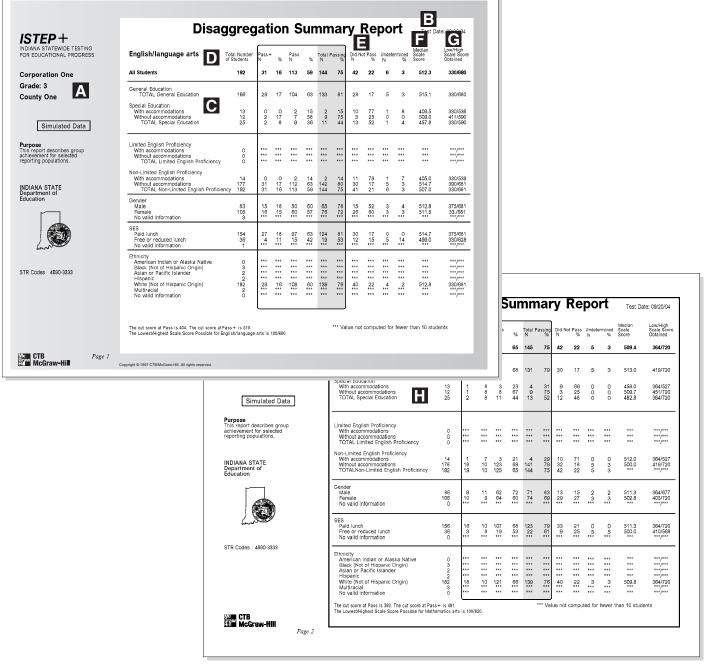


Highlights of the Group Academic Standards Summary

- A Identifies the corporation and grade.
- **B** Lists schools alphabetically by name from left to right.
- C Lists Academic Standards for the grade.
- D Shows the number of score points that assess each Academic Standard and lists the expected Indiana Performance Index (IPI) at the passing cut score.
- E Lists the mean number of score points obtained by the students in your corporation by grade, the mean IPI obtained by your students, and the difference between the mean IPI and the IPI at the passing cut score.
- Lists the number of students and the percentage of students who obtained mastery of each Academic Standard (achieved an IPI at or above the standard).
- **G** Defines the report symbols and acronyms used in this report.
- **H** Indicates the test date and identifies the corporation, county, and state.

Disaggregation Summary Report

The Disaggregation Summary Report comprises two pages, one for English/language arts and one for mathematics. This report presents, by content area, the total number of students with scores identified as passing with high achievement (Pass+), passing (Pass), not passing (Did Not Pass), and Undetermined. This information is provided for all students, as well as certain subgroups—e.g., special education students with and without accommodations.



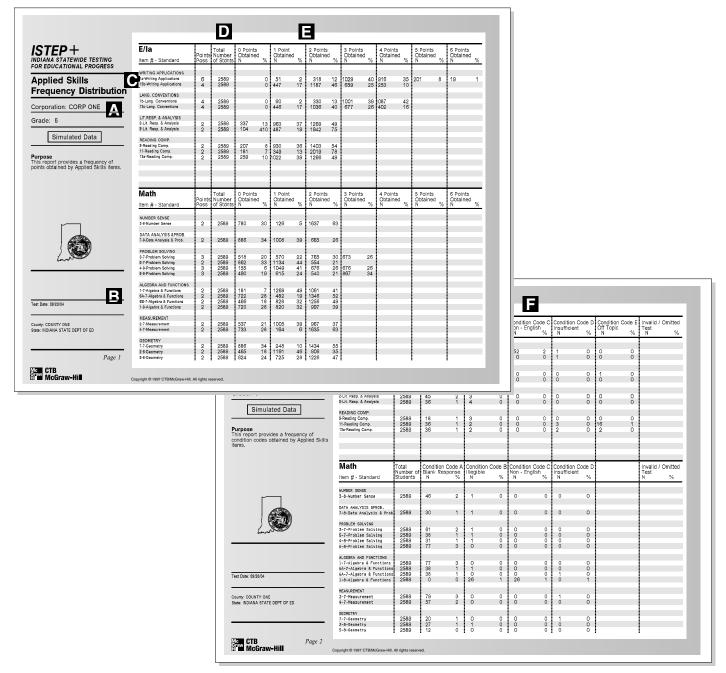
Highlights of the Disaggregation Summary Report

- A Identifies the corporation, grade, and county.
- **B** Indicates the test date.
- C Identifies the subgroups in the English/language arts content area.
- **D** Provides the total number of students.
- E Indicates the number and percentage of students who obtained Pass+, Pass, or Did Not Pass scores or who were Undetermined. The Total Passing column indicates the total number of students in the Pass+ and Pass columns.
- Indicates the median scale scores. (Not computed for groups with fewer than 10 students.)
- **G** Indicates the lowest and highest scale scores obtained.
- H Identifies the subgroups in the mathematics content area.

Applied Skills Frequency Distribution

The Applied Skills Frequency Distribution report presents, at the corporation level, the number and percentage of students who obtained each score point for the individual Applied Skills items. This information can be used to determine if the students in your corporation show strengths or needs on specific Applied Skills items and, therefore, in the Academic Standards that are assessed by these items.

Note: All sample reports shown in this guide contain simulated data only.



Highlights of the Applied Skills Frequency Distribution

- A Identifies the corporation and grade.
- **B** Indicates the test date and identifies the county and state.
- Identifies the item number and the standard(s) being scored. Descriptions of each item, along with scoring rubrics and standards, are found in the *ISTEP+Teacher's Scoring Guides*.
- **D** Lists the total number of students tested in the corporation.
- **E** Lists the number and percentage of students obtaining each score point.
- **E** Lists by condition code the number and percentage of students who did not receive a score.

Condition Codes

A = Blank/no response

B = Illegible/unable to score

C = Written predominantly in language other than English/unable to score

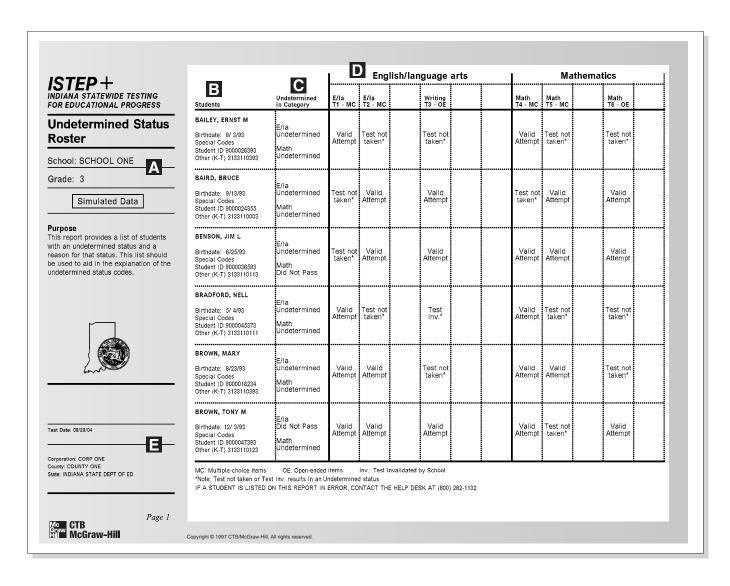
D = Insufficient response/unable to score/copied from text

E = Response not related to test question or scoring rule

Note: All condition codes convert to 0 points obtained.

Undetermined Status Roster

This report lists alphabetically by school all students in the corporation who have an Undetermined status. Students who fail to complete one or more subtests in English/language arts or mathematics are listed as Undetermined. The report indicates whether the subtest was not taken or was invalidated, thus explaining the reason for the Undetermined status.

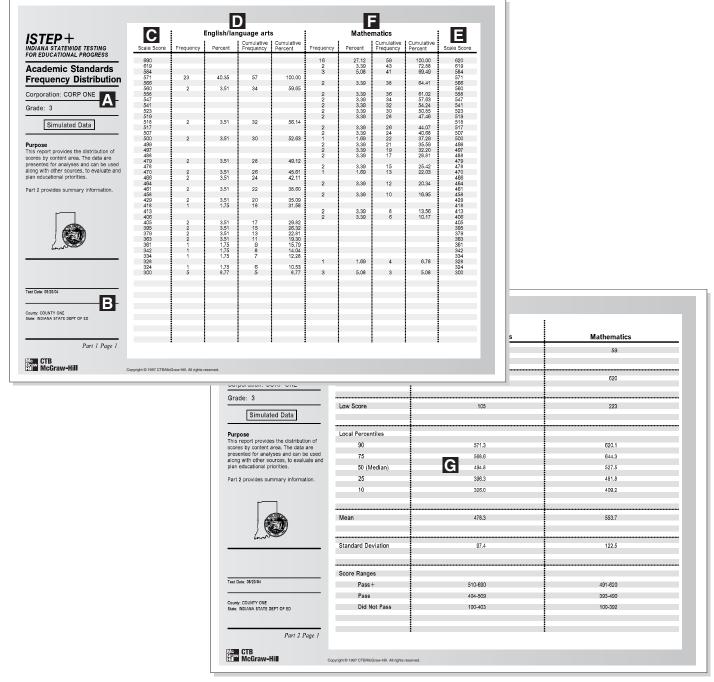


Highlights of the Undetermined Status Roster

- A Identifies the school and grade.
- **B** Lists alphabetically students who have an Undetermined status in English/language arts and/or mathematics.
- C Indicates whether the Undetermined status is in English/language arts and/or mathematics.
- **D** Indicates which subtest was invalidated or not completed.
- **E** Indicates the test date and identifies the corporation, county, and state.

Academic Standards Frequency Distribution

The Academic Standards Frequency Distribution report provides the corporation administrator with the distribution of scale scores achieved by all the students tested in the corporation. The data are presented for analysis and can be used, along with other resources, to evaluate and plan educational priorities.



Highlights of the Academic Standards Frequency Distribution

- A Identifies the corporation and grade.
- **B** Indicates the test date and identifies the county and state.
- **C** Lists the scale scores achieved on the English/language arts test.
- D Shows the number and percentage of students who obtained each scale score on the English/language arts test.
- **E** Lists the scale scores achieved on the mathematics test.
- Shows the number and percentage of students who achieved each scale score on the mathematics test.
- G Indicates the scale scores achieved by students at five local percentiles (90, 75, 50, 25, and 10).

Reference

Glossary

Criterion-Referenced Test

A test that reports students' scores relative to the Indiana Academic Standards.

Cut Scores

Cut scores are scale scores that separate and define the performance levels. The cut scores define three general levels of knowledge and skill as follows:

Pass+: The student who scores at or above the cut score in English/language arts or mathematics and is high achieving in these subjects.

Pass: The student who scores at or above the cut score in English/language arts or mathematics and demonstrates proficiency in these subjects.

Did Not Pass: The student who scores below the cut score and in all likelihood needs remedial assistance to be successful at the current grade level.

In addition, a category referred to as *Undetermined* is for learners whose *ISTEP+* scores for English/language arts or mathematics are incomplete. For these students, all or a part of the test was not taken or was considered invalid by the examiner.

Indiana Academic Standards (Grades 3–10)

To promote student academic achievement, the State Board of Education has adopted challenging standards. These standards are defined by a description of what a student should know and be able to do at the grade level completed by the student during the previous school year. The standards for English/language arts include Reading Vocabulary, Reading Comprehension, Literary Response and Analysis, Writing Process, Writing Applications, Language Conventions, and Listening and Speaking. Because the latter standard does not lend itself to a paper-and-pencil test, it is not currently being assessed by *ISTEP+*. The standards for mathematics include Number Sense, Computation, Algebra and Functions, Geometry, Measurement, Data Analysis and Probability, and Problem Solving.

Indiana Performance Index

The Indiana Performance Index (IPI) is an indication of a student's performance on the individual Academic Standards that are measured by *ISTEP+*. It represents the expected number of items that the student would have answered correctly if the student had taken 100 similar items for the specific Academic Standard.

Indiana Scale Score

Student achievement levels relative to the Indiana Academic Standards are reported by *ISTEP+* scale scores. These three-digit, equal-interval scores are expressed on a vertical scale by content area (English/language arts and mathematics). *ISTEP+* scale scores typically will range from about 100 to about 800.

Glossary

Mean

The mean is the arithmetic average of a group of scores. It is calculated by adding the scores and dividing the sum by the number of scores.

Median

The median is defined as the score below which 50% of the cases fall. The median and the 50th percentile are the same.

Number-Correct Scoring

A scoring procedure that involves adding up students' scores on the test questions in a test.

Pattern Scoring

A procedure for assigning students' scale scores that involves considering the pattern of students' scores on the questions in a test as well as certain statistical characteristics of the questions.

Performance Levels

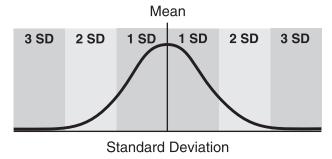
For Grades 3–10, student achievement is reported in terms of three performance levels: Pass+, Pass, and Did Not Pass. For Retest students, the performance levels are different from those of Grades 3–10. Students are reported as performing above the standard or below the standard.

Raw Score

A student's observed score on a test, i.e., the number correct. While raw scores do have some usefulness, they should not be used to make comparisons between performance on different tests, unless other information about the characteristics of the test is known.

Standard Deviation (SD)

A statistic that indicates the amount of variability in a group of scores. When scores are normally distributed (i.e., when they are part of a bell-shaped, "normal" curve), about two-thirds of the scores are within one SD above and below the average (mean) score, and about 95% of scores are within two SDs of the mean. In almost any shaped distribution, all scores will be within five SDs of the mean score.



Glossary

Standardized Test

A test administered in accordance with explicit directions for uniform administration.

Test Section

A subtest of a given content area.

Vertical Scale

A single, continuous scale that is directly related to the level of skill and difficulty of content. As a student progresses from one grade to the next, acquiring greater skill and knowledge, so does the student progress up the vertical scale by receiving higher scale scores.

Sample Letter to Parents (for students in Grades 3–10)

Dear Parent:

This past fall, students in Grades 3–10 participated in the Indiana Statewide Testing for Educational Progress (*ISTEP+*). A copy of your child's Student Report is enclosed for your review.

The front of the Student Report shows how your child did compared to the Indiana Academic Standards. The standards are the required skills that schools must teach to their students. This report shows whether your child scored at the Pass+, Pass, or Did Not Pass performance level on the English, mathematics, or science parts of the test.

A student who scores in the Pass+ or Pass performance levels exceeds or meets the cut scores in English or mathematics. A student who scores in the Did Not Pass performance level may require remedial assistance in order to be successful at the current grade.

The back of the Student Report shows how your child did on each of the English and mathematics standards and how your child did on each of the Applied Skills items. These are the questions that require students to write a paragraph or write the answer to a question instead of simply choosing the answer. Your child's answers to these Applied Skills items will be available for your inspection at the school in December.

Your child's school is the best source of information if you have questions about your child's *ISTEP+* scores.

Sincerely,

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CTB/McGraw-Hill

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Guide to Test Interpretation Grades 3–10

